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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,920	04/12/2001	Takakazu Tanaka	35.G2771	5232

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EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 12/02/2002

J

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,920

Applicant(s)

TANAKA et al.

Examiner

J. DOTE

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 10/3/02 (cert. mail. 9/25/02)
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 21-32 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 21-32 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

1. The examiner acknowledges the cancellation of claims 1-4, 6, and 8-20, and the addition of claims 21-32 filed in Paper No. 7 on Oct. 3, 2002 (cert. mail. Sep. 25, 2002). Claims 21-32 are pending.

The clean copy of the replacement paragraph at page 8, line 15, of the specification filed in Paper No. 7, is not the same as the marked-up version of the replacement paragraph. The clean copy of the paragraph shows that the group R^{15} in formula (4) can be bonded to the ortho, meta, and para positions of the phenyl ring. The marked-up version of the paragraph shows that the group R^{15} of formula (4) is attached at the meta-position of the phenyl ring. The clean copy of the replacement paragraph has been entered, thereby deleting the previously filed paragraph. The examiner notes that the clean copy filed in Paper No. 7 is identical to the replacement paragraph previously filed in Paper No. 5 on Apr. 15, 2002.

2. The rejection of claim 6 under 35 U.S.C. 112, first paragraph, set forth in office action mailed on Jun. 25, 2002, Paper No. 6, paragraph 6, has been mooted by the cancellation of claim 6.

The rejections of claims 1-4, 8, and 9 under 35 U.S.C. 102(e)/103(a) over US 6,228,547 B1 (Kobayashi), and of claims 10 and 11 over US 5,430,526 (Ohkubo) combined with

Kobayashi, set forth in Paper No. 6, paragraphs 9 and 14, respectively, have been withdrawn in response to the cancellation of claims 1-4 and 8-11, and the addition of claims 21 and 28, which require that the charge transfer material be represented by formulas (CT-1), (CT-3), (CT-5), (CT-6), (CT-8), (CT-9), or (CT-11). None of the references teaches or suggests a photosensitive member comprising the charge transfer material recited in instant claims 21 and 28. In particular, Kobayashi's triarylamine compounds are outside the scope of the compounds recited in the instant claims.

The rejections of claims 1-4, 8, and 9 under 35 U.S.C. 102(b)/103(a) over Japanese Patent 5-78261 (JP'261), and of claims 10 and 11 over Ohkubo combined with JP'261, set forth in Paper No. 6, paragraphs 10 and 15, respectively, have been withdrawn in response to the cancellation of claims 1-4 and 8-11, and the addition of claims 21 and 28 as described supra. None of the references teaches or suggests a photosensitive member comprising the charge transfer material recited in instant claims 21 and 28. In particular, JP'261's triarylamine compounds are outside the scope of the compounds recited in the instant claims.

The rejections of claims 1-4, 8, and 9 under 35 U.S.C. 102(b)/103(a) over US 4,920,022 (Sakakibara), and of claims 10 and 11 over Ohkubo combined with JP'261, set forth in

Paper No. 6, paragraphs 11 and 16, respectively, have been withdrawn in response to the cancellation of claims 1-4 and 8-11, and the addition of claims 21 and 28, as described supra. None of the references teaches or suggests a photosensitive member comprising the charge transfer material recited in instant claims 21 and 28. In particular, Sakakibara's triarylamine compounds are outside the scope of the compounds recited in the instant claims.

3. The amendment filed in Paper No. 7 on Oct. 3, 2002, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The replacement paragraph at page 8, line 15, of the specification, replaces originally filed formula (4) at page 9, line 1, where the group R^{15} is attached at the meta-position of the phenyl ring, with amended formula (4), where a line runs from group R^{15} to the center of the phenyl ring, indicating that the group R^{15} can be bonded to the ortho, meta, and para positions of the phenyl ring.

The originally filed specification does not provide an adequate written description of said amendment to formula (4).

As discussed above, the originally filed specification at page 9, line 1, shows that the R¹⁵ is attached at the meta-position of the phenyl ring. The originally filed specification does not disclose any compounds of formula (4) where the group R¹⁵ is positioned at the para or ortho positions of the phenyl ring.

Applicants are required to cancel the new matter in the reply to this Office Action.

Applicants in Paper No. 7 assert that the replacement paragraph at page 8, line 15, of the specification, filed in Paper No. 7, overcomes the objection. However, as noted in the objection and in paragraph 1, supra, the clean copy of the replacement paragraph did not amend the previously filed replacement paragraph filed in Paper No. 5.

4. The disclosure is objected to because of the following informalities:

The compound (CT-8) at page 14, line 25, of the specification comprises the moiety N-4-methylphenyl-N-3-ethylphenylamino. However, Table 1 at page 23 reports that the compound (CT-8) comprises the moiety N-4-methoxyphenyl-N-3-ethylphenylamino.

Appropriate correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21 and 28 are indefinite in the compounds (CT-6) and (CT-8) because they are outside the previously recited limitation "triphenylamine." The compounds are amines substituted with two substituted phenyl groups and a fluorenyl group. Fluorenyl is not a phenyl group. Fluorenyl is a polycyclic ring represented by the chemical formula $(\text{C}_6\text{H}_4 \cdot \text{CH}_2 \cdot \text{C}_6\text{H}_3)-$, while phenyl is represented by the chemical formula C_6H_5- . See Grant and Hackh's Chemical Handbook, fifth ed., page 240.

Claims 24 and 29 are indefinite in the phrase "the base is an alkali metal alkoxide" (emphasis added) for lack of antecedent basis in claims 21 and 22, respectively. Claims 21 and 22 do not previously recite the presence of a base.

Claims 25 and 30 are indefinite in the phrase "the alkali metal alkoxide is a sodium tert-butoxide" (emphasis added) for lack of antecedent basis in claims 21 and 22, respectively.

Claims 21 and 22 do not previously recite the presence of an alkali metal alkoxide.

7. Claim 21 is objected to because of the following informalities:

The number "5" in the chemical formula " C_2H_5 in compound (CT-8) is not legible.

The typographic error in the phrase "represented y formula (1)" (emphasis added).

Appropriate correction is required.

8. The phrase "at least one of Ar^1 to Ar^3 is a tert-butyl group" recited in instant claim 1 is interpreted to mean that one of the Ar groups is tert-butyl, which is an alkyl group. See the instant specification, page 10, lines 4-5, and the compounds listed at page 11.

9. The following terms are means-plus-function limitations covered by the 35 U.S.C. 112, sixth paragraph: "exposure means," "developing means," "transfer means," and "cleaning means" recited in instant claims 10 and 11. The only definitions are provided by instant Fig. 1 and equivalents thereof. The instant specification defines "contact charging means" as a charge roller." See the instant specification at page 19, lines 16-18,

and Fig. 1, reference sign 3, which discloses "a contact charging means using a charge roller."

10. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,430,526 (Ohkubo) combined with US 4,859,556 (Sasaki) and Diamond, Handbook of Imaging Materials, page 395.

Ohkubo discloses an electrophotographic image forming apparatus comprising all the components recited in instant claim 22, but for the particular photosensitive member. Fig. 1, col. 2, line 56, to col. 3, line 56. Ohkubo also discloses a process cartridge which comprises all the components recited in instant claim 21, but for the particular photosensitive member. Fig. 2, col. 3, line 65, to col. 4, line 8. Ohkubo discloses that the charging member is a contact charging roller as recited in the instant claims. An oscillating voltage is applied to the charging roller in the form of a DC-biased AC voltage. The peak-to-peak voltage of the oscillating voltage is not less than twice the absolute value of a "charge starting voltage" relative to the photosensitive member. Said oscillating voltage provides uniform charging. Ohkubo discloses that "uneven charging hardly occurs in a regular developer or a reverse development process."

Col. 1, lines 36-42, col. 3, line 64, to col. 4, line 5, col. 4, lines 9-17.

Ohkubo does not disclose the use of the photosensitive member recited in the instant claims. However, Ohkubo does not limit the type of photosensitive member used. Col. 4, lines 29-35.

Sasaki discloses an electrophotographic photosensitive member comprising a conductive support comprising thereon a photosensitive layer comprising a charge generation material and the charge transfer triarylamine compound 220. See Table 4 at col. 54, and Table 8 at col. 107, example nos. 58 and 59. Compound 220 is represented by the chemical formula (CT-9) recited in instant claim 21 and 22. Sasaki discloses that its photosensitive member has high photosensitivity and uniform spectral absorption in the visible region. The photosensitive member is comparatively inexpensive to make and "excellent in durability." Col. 2, lines 32-37.

Instant claims 21-32 are written in product-by-process format. These claims recite that the charge transfer triarylamine compound is obtained by reacting an amine compound with an aryl halide in the presence of the base (claims 23 and 28) and a catalyst comprising a palladium compound and a particular phosphine compound. Sasaki does not disclose that its triarylamine compound 220 is obtained by such a method. Sasaki,

col. 48, lines 33-51; col. 48, line 66, to col. 49, line 1; and Table 4 at col. 53, example 35. Sasaki's triphenylamine compound 220 is obtained by reacting diethyl-1,1-diphenylmethylphosphonate with 4-N,N'-bis(4-methylphenyl)aminobenzaldehyde. The instant specification discloses that when the charge transfer triarylamine compound is made by the method recited in the instant claims, the photosensitive member comprising the resulting charge transfer compound exhibits an endurance stability. Instant specification, page 5, lines 14-16, page 5, line 23, to page 6, line 9, and Table 4, examples 1-10. For example, Table 4 reports that after 30,000 copying operations, the photosensitive member in example 3 exhibited a variation in dark potential and light potential variation of -5 V and -15 V, respectively. As discussed supra, Sasaki also discloses that its electrophotographic photosensitive member comprising the charge transfer triarylamine compound 220 is "excellent in durability." Col. 2, line 33. Accordingly, it appears that Sasaki's triarylamine compound 220 is the same or substantially the same as the instantly recited triarylamine compound made by the method recited in the instant claims. The burden is on applicants to prove otherwise. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983); In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985); MPEP 2113.

Sasaki does not disclose that the conductive support of the photosensitive member can be a drum. Sasaki at col. 98, lines 15-20, discloses that the conductive support can be a metal plate or metal foil, e.g., made of aluminum, or a plastic film comprising an aluminum evaporated film. However, it is well-known in the art that the conductive support of a photoreceptor (i.e., photosensitive member) can be in the form of a flexible web or a metal cylinder. Diamond, Handbook of Imaging Materials, page 395.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Sasaki and Diamond, to use Sasaki's photosensitive member comprising a metal cylinder as the conductive substrate as the photosensitive member in the apparatus and process cartridge disclosed by Ohkubo, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic apparatus and process cartridge having high photosensitivity and uniform spectral absorption in the visible region.

11. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo combined with US 6,242,648 B1 (Yamasaki).

Ohkubo discloses an electrophotographic image forming apparatus comprising all the components recited in instant

claim 22, but for the particular photosensitive member. Ohkubo also discloses a process cartridge which comprises all the components recited in instant claim 21, but for the particular photosensitive member. The discussion of Ohkubo in paragraph 10 above is incorporated herein by reference.

Ohkubo does not disclose the use of the photosensitive member recited in the instant claims. However, Ohkubo does not limit the type of photosensitive member used. Col. 4, lines 29-35.

Yamasaki discloses an electrophotographic photosensitive member comprising a conductive support comprising thereon a photosensitive layer comprising a phthalocyanine charge generation material and the charge transfer triarylamine dimer N,N'-diphenyl-N,N'-di-m-methylphenyl-4,4'-diaminobiphenyl. Example 6 at cols. 11-12, and synthesis example 1 at cols. 8 and 9. The triarylamine dimer is represented by the chemical formula (CT-11) recited in instant claim 21 and 28. Yamasaki further discloses that the conductive support of the photosensitive member can be a drum. Col. 7, lines 21-24. Yamasaki discloses that its triarylamine dimer has high purity and "stable photosensitive characteristic." Col. 6, lines 49-51. The photosensitive member comprising said triarylamine dimer has "good charging property," medium to high photo-response and high

durability (durability in photo-response and durability in potential). Col. 6, line 64, to col. 7, line 5.

Instant claims 21-32 are written in product-by-process format. These claims recite that the charge transfer triphenylamine compound is obtained by reacting an amine compound with an aryl halide in the presence of the base (claims 23 and 28) and a catalyst comprising a palladium compound and a particular phosphine compound. Yamasaki does not disclose that its triarylamine dimer is obtained by such a method. See Yamasaki, example 1 at cols. 8 and 9. Yamasaki's triarylamine dimer is obtained in an Ullmann reaction, reacting 4,4'-diiodobiphenyl and m-methyldiphenylamine in the presence of polyethylene glycol as a reaction accelerator. The instant specification discloses that when the charge transfer triarylamine compound is made by the method recited in instant claim 1, the photosensitive member comprising the resulting charge transfer compound exhibits an endurance stability. The discussion of the instant specification in paragraph 10 above is incorporated herein by reference. As discussed supra, Yamasaki also discloses that its electrophotographic photosensitive member comprising its charge transfer triarylamine dimer has high durability in photo-response and potential. Accordingly, it appears that Yamasaki's triarylamine dimer is the same or substantially the same as the instantly recited triarylamine compound made by the method recited in instant claims 21-32. The

burden is on applicants to prove otherwise. Marosi, supra;
Thorpe, supra; MPEP 2113.

It would have been obvious for a person having ordinary skill in the art to use Yamasaki's photosensitive member as the photosensitive member in the apparatus and process cartridge disclosed by Ohkubo, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic apparatus and process cartridge having good charging characteristic, medium to high photo response, and high durability in photo-response and in potential.

12. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo combined with Yamasaki.

Ohkubo discloses an electrophotographic image forming apparatus comprising all the components recited in instant claim 22, but for the particular photosensitive member. Ohkubo also discloses a process cartridge which comprises all the components recited in instant claim 21, but for the particular photosensitive member. The discussion of Ohkubo in paragraph 10 above is incorporated herein by reference.

Ohkubo does not disclose the use of the photosensitive member recited in the instant claims. However, Ohkubo does not limit the type of photosensitive member used. Col. 4, lines 29-35.

As discussed in paragraph 11 above, Yamasaki teaches an electrophotographic organic photosensitive member. The member comprises a conductive support comprising thereon a photosensitive layer comprising a phthalocyanine charge generation material and the charge transfer triarylamine dimer N,N'-diphenyl-N,N'-di-m-methylphenyl-4,4'-diaminobiphenyl. Example 6 at cols. 11-12. Said triarylamine dimer is made by Yamasaki's method. See synthesis example 1.

Yamasaki discloses that triarylamine dimers have been widely used as charge transport materials in organic electrophotographic photosensitive members (e.g., photoreceptors) used in copying machines, printers, and the like. Col. 1, lines 37-42. Yamasaki further discloses that the prior art teaches that aromatic tertiary amines can be obtained by reacting an aromatic halogenated compound with an aromatic secondary amine in the presence of a palladium tert-phosphine catalyst (e.g., $P(o\text{-tolyl})_3Pd$) and the base sodium tert-butoxide. Col. 2, lines 38-42. Yamasaki synthesizes the charge transport triarylamine dimer N,N'-diphenyl-N,N'-di-m-methylphenyl-4,4'-diaminobiphenyl by said prior art method. Said dimer is represented by the chemical formula (CT-11) recited in instant claims 21 and 22. The dimer is obtained by reacting m-methyldiphenylamine with 4,4'-diiodobiphenyl in the presence of the base sodium tert-butoxide and a catalyst comprising

tri-o-tolylphosphine and a palladium salt. See Yamasaki, comparative example 2 at col. 11. According to Yamasaki, the disadvantages of the prior art method are the requirements of an expensive palladium catalyst and the recovery of the catalyst after reaction. Col. 2, lines 58-61. There is no evidence that these factors affect the identity of the product. Moreover, it is evident that the prior art triarylamine dimer is useful as a charge transport material in the organic electrophotographic photoreceptor disclosed by Yamasaki.

Instant claims 21-32 are written in product-by-process format. These claims recite that the charge transfer triphenylamine compound is obtained by reacting an amine compound with an aryl halide in the presence of the base (claims 23 and 28) and a catalyst comprising a palladium compound and a particular phosphine compound. The prior art method as disclosed in Yamasaki's comparative example 2 does not use a catalyst comprising the phosphine compound recited in the instant claims. As discussed supra, the prior art method uses a catalyst comprising tri-o-tolylphosphine. The prior art triarylamine dimer is synthesized by a method that is within the method limitations recited in the instant claims, but for the particular phosphine compound recited in the instant claims. The instant specification contains no teachings that triarylamine made by methods using the particular phosphines recited in the instant

claims are different from those made by methods using a triarylphosphine compound not comprising a t-butyl group, such as the prior art tri-o-tolylphosphine in Yamasaki's comparative example 2. See the instant specification, formula (1) at pages 7 and 8, and Table 1, synthetic example 10, which uses triphenylphosphine. Formula (1) of the instant specification states that the phosphine compound of formula (1) can be substituted with aryl groups, which may in turn have substituent groups. Table 1 shows that the triarylamine compound of synthetic example 10 has the same purity as triarylamine compounds obtained using phosphines comprising a tert-butyl group. Table 4 of the instant specification shows that a photosensitive member comprising the triarylamine compound of synthetic example 10 provides results that are the same as or better than the results provided by photosensitive members comprising triarylamine compounds obtained using phosphine compounds comprising a tert-butyl group. Accordingly, it appears that the prior art triarylamine dimer made by the method disclosed in Yamasaki's comparative example 2 is the same or substantially the same as the instantly recited triarylamine compound made by the method using the particular phosphine compounds recited in the instant claims. The burden is on applicants to prove otherwise. Marosi, supra; Thorpe, supra; MPEP 2113.

It would have been obvious for a person having ordinary skill in the art to use the prior art triarylamine dimer in Yamasaki's comparative example 2 as the charge transport material in the photosensitive member disclosed by Yamasaki and to use the resultant photosensitive member in the apparatus and process cartridge disclosed by Ohkubo, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic apparatus and process cartridge capable of providing image copies.

13. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo combined with US 5,098,809 (Kikuchi).

Ohkubo discloses an electrophotographic image forming apparatus comprising all the components recited in instant claim 22, but for the particular photosensitive member. Ohkubo also discloses a process cartridge which comprises all the components recited in instant claim 21, but for the particular photosensitive member. The discussion of Ohkubo in paragraph 10 above is incorporated herein by reference.

Ohkubo does not disclose the use of the photosensitive member recited in the instant claims. However, Ohkubo does not limit the type of photosensitive member used. Col. 4, lines 29-35.

Kikuchi discloses an electrophotographic photosensitive member comprising a conductive support having thereon a photosensitive layer comprising a charge generation material and the charge transfer triarylamine compound (19) that meets the limitations of formula (CT-6) recited in instant claims 21 and 22. Col. 6, lines 25-30; col. 16, lines 14-38; and Table 4, example 17. Kikuchi further discloses that the conductive support in the photosensitive member can be in the shape of a drum. Col. 8, lines 37-38. Kikuchi discloses that its photosensitive member has high sensitivity and is capable of stably retaining potential during repeated use. Col. 2, lines 21-24. Kikuchi also discloses that its photosensitive member can be used in an electrophotographic apparatus, and does not limit the type of apparatus. Col. 9, lines 62-68.

Instant claims 21-32 are written in product-by-process format. These claims recite that the charge transfer triarylamine compound is obtained by reacting an amine compound with an aryl halide in the presence of the base (claims 23 and 28) and a catalyst comprising a palladium compound and a particular phosphine compound. Kikuchi does not disclose that his triarylamine compound (19) is obtained by such a method. Kikuchi, col. 7, lines 29-42. The instant specification discloses that when the charge transfer triarylamine compound is made by the method recited in instant claim 1, the photosensitive

member comprising the resulting charge transfer compound exhibits an endurance stability. The discussion of the instant specification in paragraph 10 above is incorporated herein by reference. As discussed above, Kikuchi also discloses that his electrophotographic photosensitive member comprising the charge transfer triarylamine compound (19) has excellent durability to the repetition of the image forming process. Col. 2, lines 20-24, and Table 4, example 19. Table 4 reports that after 10,000 successive image formation cycles, the variation in the dark potential and light potential were +8 V and -27 V, respectively. (From the results reported in Tables 1 and 4 in Kikuchi, it appears that the choice of charge generating material includes the variation in light potential. For example, the photosensitive members in example 1 in Table 1 and example 14 in Table 4 have the same composition, but for the charge generation layer. The charge generation layer in example 1 comprises a particular diazo pigment, while the layer in example 14 comprises a dibromoanthanthrone. After 10,000 successive image formation cycles, the variation in the dark potential and light potential for the photosensitive member in example 1 were +3V and -4 V, respectively, while the variations in potentials for the photosensitive member in example 14 were +6 V and -12 V, respectively.) Accordingly, it appears that Kikuchi's triarylamine compound (19) is the same or substantially the same

as the instantly recited triarylamine compound made by the method recited in instant claims 21-38. The burden is on applicants to prove otherwise. Marosi, supra; Thorpe, supra; MPEP 2113.

It would have been obvious for a person having ordinary skill in the art to use Kikuchi's photosensitive member as the photosensitive member in the apparatus and process cartridge disclosed by Ohkubo, because that person would have had a reasonable expectation of successfully obtaining an electrophotographic apparatus and process cartridge member has high sensitivity and is capable of stably retaining potential during repeated use.

Applicants' arguments filed in Paper No. 7 have been fully considered but they are not persuasive.

Applicants assert that Kikuchi fails to disclose a triphenylamine compound represented by the formulas (CT-1), (CT-3), (CT-5), (CT-6), (CT-8), (CT-9), and (CT-11) as recited in the instant claims, which is formed from a phosphine compound represented by formula (1). Applicants assert that Kikuchi's triarylamine compound is obtained by an Ullmann reaction using a copper catalyst corresponding to that used in comparative examples 1-10 of the instant specification. Applicants argue that Kikuchi's evaluations are made with an NP-150Z tester, which employs a corona charging, not a contact charging member as employed in the present invention. Applicants assert that the

LBP-950 copier used in the instant examples employs a contact charger, which is manufactured by the instant assignee.

Applicants' arguments are not persuasive for the following reasons:

- As discussed in the rejection above, Kikuchi's triarylamine compound (19) is represented by formula (CT-9) recited in the instant claims. (On further review of Kikuchi, the examiner's rebuttal statement in the previous office action, Paper No. 6 at page 26, lines 10-11, that there is no disclosure in Kikuchi of how its triarylamine compounds are obtained is in error. Kikuchi discloses that its compounds are synthesized by the method disclosed at col. 7, lines 30-40. Kikuchi's method appears to be an Ullmann method.)

- As discussed in the rejection above, Ohkubo teaches an apparatus and process cartridge that comprises all the other components (which include a contact charger) recited in instant claims 21 and 22. Kikuchi does not limit the type of electrophotographic apparatus used. For the reasons set forth in the rejection, the combined teachings of Ohkubo and Kikuchi render obvious the process cartridge and apparatus recited in instant claims 21-32.

- There is no objective evidence in the present record supporting applicants' allegation that the results provided by applicants' triarylamine compounds made by the method recited in

the instant claims reported in Table 4 of the instant specification are obtained by a system using a contact charging method. The instant specification merely discloses that a laser beam printer LBP-950 made by Cannon is used to determine the results in "Table 3 [sic: 4]." Applicants have not provided any objective evidence to support their allegation that the LBP-950 employs a contact charger. Nor did applicants provide any objective evidence to support their allegation that the copying machine NP-3255 used in Kikuchi's example employs a corona charger.

Thus, applicants have not provided any objective evidence to show that Kikuchi's triarylamine compounds are not the same or substantially the same as triarylamine compounds made by using phosphine compounds comprising a tert-butyl group as recited in the instant claims in a contact charging system. Thus, applicants have failed to show that Kikuchi's triarylamine compounds are not the same or substantially the same as triarylamine compounds made by the method recited in the instant claims.

Accordingly, the rejection over Kikuchi stands,

14. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS**

ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.

JLD
November 23, 2002


JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1500
1700